Supplementary Materials

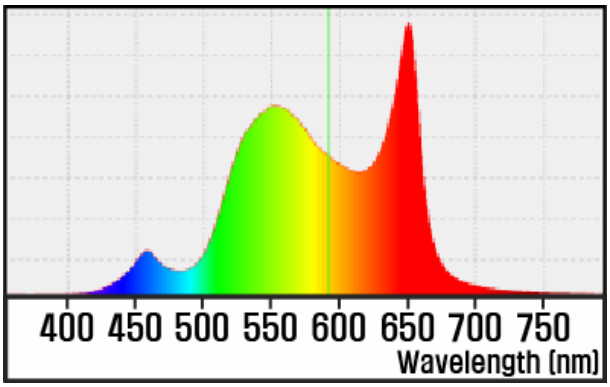

Figure S1. Spectral distribution of the white LED.

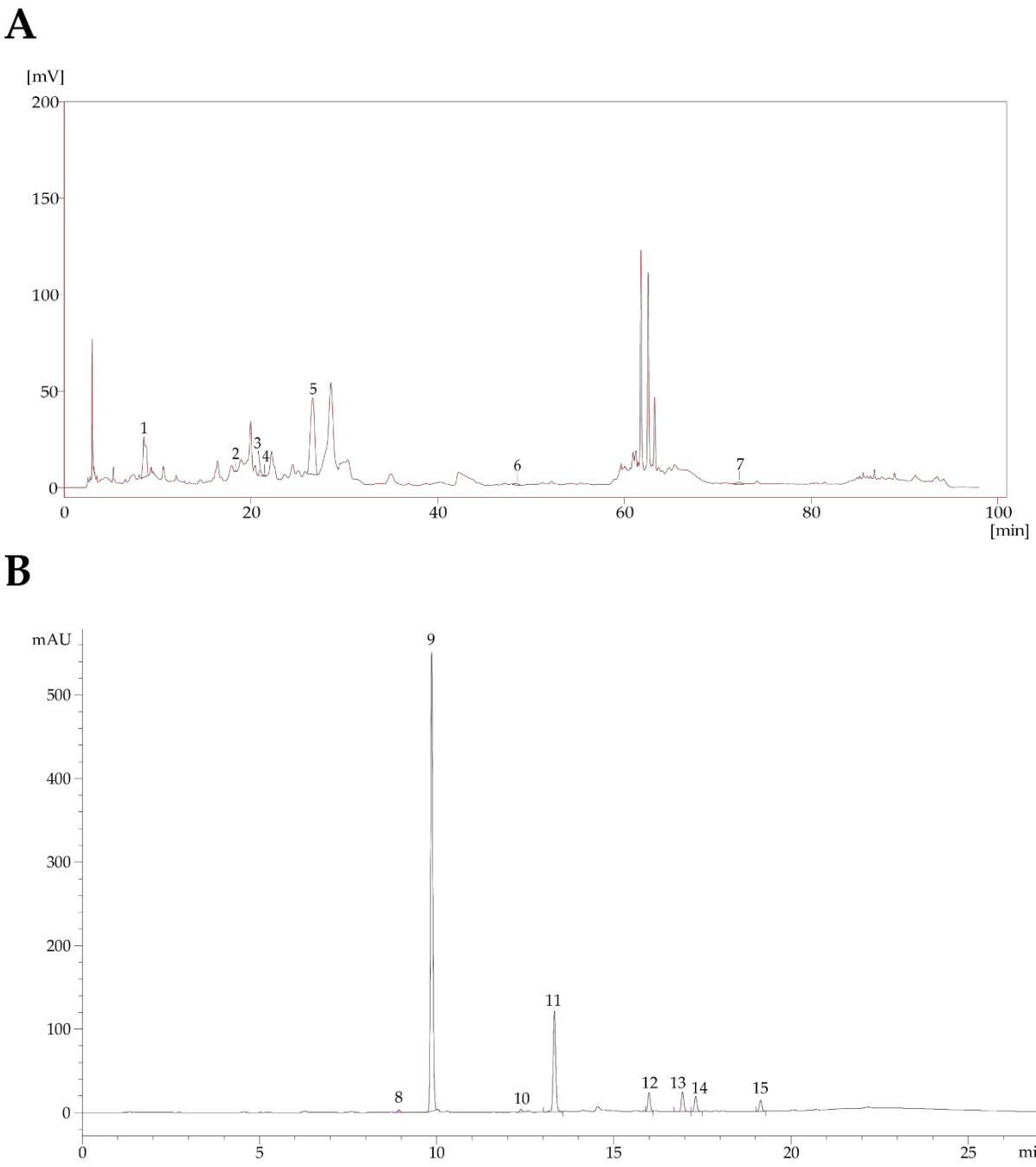

Figure S2. Chromatogram of the phenolic compounds (**A**) and the desulfo-glucosinolates (**B**) extracted from mustard sprouts grown under blue LED lights. 1, Gallic acid; 2, catechin; 3, chlorogenic acid; 4, 4-hydroxybenzoic acid; 5, caffeic acid; 6, sinapic acid; 7, quercetin; 8, glucoiberin; 9, sinigrin; 10, gluconapin; 11, 4-hydroxyglucobrassicin; 12, glucobrassicin; 13, 4 methoxyglucobrassicin; 14, gluconasturtiin; 15, neoglucobrassicin.

Figure S3. *Brassica juncea* sprouts grown under different light-emitting diode (LED) lights (blue, white, and red) for three weeks.

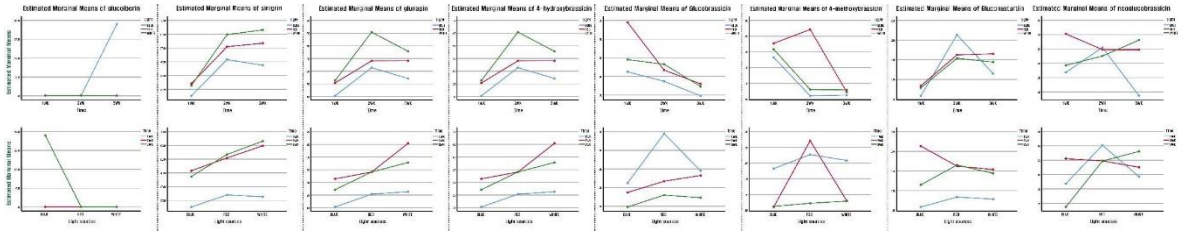

Figure S4. Two-way ANOVA interaction plots showing changes in means of glucosinoalte contents by developmental time and light sources.

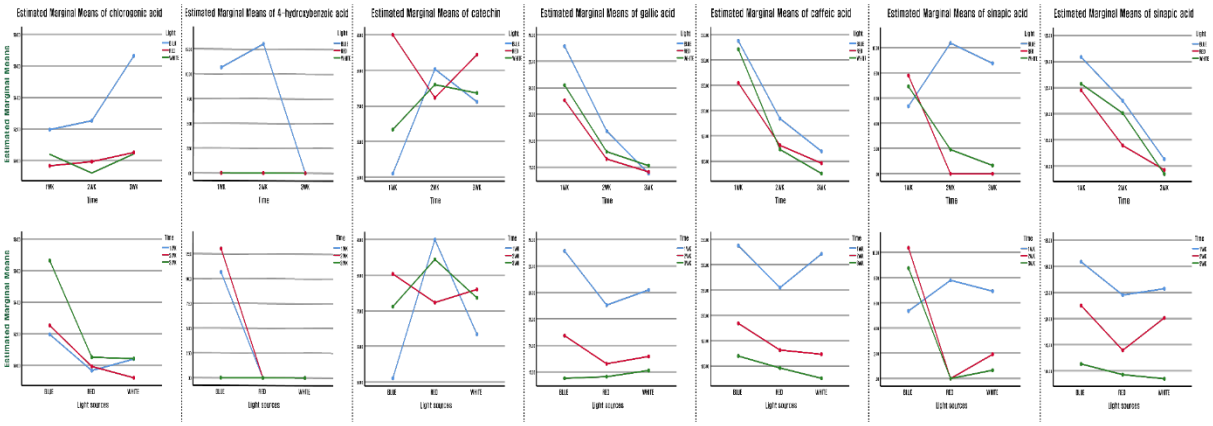

Figure S5. Two-way ANOVA interaction plots showing changes in means of phenolic contents by developmental time and light sources.